

REVIEW OF ALTERNATIVE CAPACITY REQUIREMENTS (ACR) REQUESTS FOR GROUNDWATER SYSTEMS THAT SERVE FEWER THAN 250 OR FEWER THAN 750 PEOPLE

Rules Affected: Title 30 Texas Administrative Code (30 TAC) §290.46(f)(3)(A)(ii)(III), §290.45(g)

Purpose

This PTR Section Program Staff Guidance Document (Guidance) was developed to facilitate consistent and timely reviews of ACR requests from public water systems which are only required to collect weekly usage data and do not have the daily production data required to calculate an ACR. Typically, the TCEQ will either grant a temporary ACR or deny an ACR but allow a temporary 40-month extension of the ACR to obtain the minimum required ACR documentation. The rule in 30 TAC §290.45(g)(1)(B) requires 36 months of daily production data to evaluate an ACR request; however, these data are typically not collected by groundwater systems and purchased water systems that serve fewer than 250 connections or fewer than 750 people. ACRs are not available for non-community water systems or groundwater systems that serve fewer than 50 connections and do not have ground storage.

Background

Public water systems (PWSs) may request an ACR to the minimum capacity requirements in 30 TAC §290.45. Systems requesting an ACR must demonstrate that the granting of an ACR will not compromise public health or result in a degradation of service and of water quality. To make this determination, the Texas Commission on Environmental Quality (TCEQ) reviews detailed system information that includes: inventory of major production and pressurization facilities (pumps, tanks, pressure tanks, elevated storage), **daily production data of the water system**, total number of active monthly connection counts, and other requirements specified in 30 TAC §290.45(g)(1). Daily production data for surface water systems and larger systems (more than 250 connections or 750 people) is required and is readily available in most cases. However, the same statement is not true for groundwater systems that provide water to 250 or fewer connections or 750 or fewer people ("small systems"), as these systems are only required to record **weekly** production data.

Current TCEQ regulations require small systems, and those purchasing treated water, to maintain a record of the amount of water distributed each week (30 TAC §290.46(f)(3)(A)(ii)(III)), thus creating a situation where small system compliant with record keeping requirements may not be able to provide the daily data needed to obtain an ACR. It should be noted, however, that §290.45(g)(3)(B) allows the

use of daily usage data from a comparable PWS to determine the maximum daily demand used to calculate ACRs. If a PWS chooses to use comparable site data, this request must be submitted by a licensed professional engineer (PE) in the state of Texas. Given the type of system (e.g., manufactured/mobile home parks, live-in RV parks, etc.), daily production from a comparable site may be difficult to obtain.

Guidance

Historically, the TCEQ has allowed small water systems a 40-month grace period (or a temporary exception to the minimum capacity requirements) to allow the collection of 36-months of daily usage data. This staff guidance will document the criteria used to determine whether a 40-month extension period or temporary exception should be granted.

During the review of a request, the following information should be evaluated:

- Whether available weekly data and monthly connection counts show an ACR may be warranted. A minimum of 36-months' worth of weekly data (daily is preferable) must be submitted as part of the request.
- If there are any unusual events that affect water usage in the data provided (line breaks, fires, leaks, etc).
- Must include updated active connections per month.
- Whether the system had pressure or other compliance issues indicative of deficient system capacity or operation during the time of data collection.
- If the system has multiple pressure planes, a separate ACR must be calculated for each one. There must be separate usage data, and separate connection data per month per pressure plane.
- Any other supporting documentation.

Coordination with Regional Office

If the PWS has sufficient weekly production data to calculate an ACR, the Technical Review and Oversight Team (TROT) reviewer has two options:

1. Deny the request, but coordinate with the Region to allow the PWS a period of time to collect daily-usage data for a future submittal, or
2. Grant a temporary ACR using a calculated Maximum Daily Demand (MDD).

The reviewer's approach will depend on whether the Regional Office is comfortable with TROT sending a letter that states the system will not be cited by the TCEQ during the time the system is collecting daily usage data for an ACR request. Appropriate caveats are included to qualify this language.

Denying the ACR Request

If the system does not have pressure complaints or water outages, ask the Region if they support allowing the system a period of 40 months to collect daily usage data, resubmit the ACR request, and not cite the system for capacity violations during this time. If the Region accepts this approach, draft the letter to include the following language:

"After consulting with regional staff, in order to review a request for an ACR at a future date, the PWS must collect 36-months of daily usage data and all other data specified in 30 TAC §290.45(g)(1), and submit the required data to TCEQ to evaluate the water system's request for an ACR. If operating pressures in the distribution system do not fall below 35 pounds per square inch (psi), there is no degradation in water quality or quantity, and the system does not downsize their supply, storage, service pumping and pressure maintenance facilities, no additional action will be taken for <specify well, production, storage, pump or pressure tank> capacity deficiencies during a 40-month period from the date of this letter."

If the system is requesting an ACR as a result of an alleged violation, the following language must also be included in the letter:

"The PWS must develop a compliance plan with the TCEQ <Enter Region> Regional Office for the <enter capacity type> capacity violation (Investigation No. XXXXX)."

Granting a Temporary ACR

A temporary ACR can be granted if the regional office is uncomfortable with the first approach and concurs that a temporary ACR is acceptable. To calculate an equivalency ratio (ER) for the temporary ACR(s), the reviewer should follow the guidance below:

1. Calculate an average day demand (ADD) based on the PWS's 36-months of weekly usage data.
 - a.
$$\frac{(\text{Total Usage for 36 months in gallons}) \div (\text{Number of Connections}) \div (\text{Number of days}) \div (1440 \frac{\text{min}}{\text{day}})}{= \text{ADD}}$$
2. Using the ADD, determine a calculated MDD by multiplying the ADD by 2.4 (based on the definition of a MDD in §290.38(43)).
 - a. **$\text{ADD} \times 2.4 = \text{MDD}$**
3. Calculate the ER using the calculated MDD as required in §290.45(g)(2)(B). The safety factor is 1.15. If it is proven that demand is not going to increase in the next 5 years then a safety factor of 1.05 can be used.
 - a. **$\text{MDD} \times (1.15 \text{ or } 1.05) \div 0.6 = \text{ER}$**
4. Calculate the ACR value(s), and grant a temporary ACR for a period of 40 months. The letter should specify that the temporary ACR will expire in 40

months from the date of the letter. The PWS will be required to submit 36-months of daily usage data for the review of their temporary ACR (calculating an ACR using daily usage data). The 40-month period should give the PWS enough time to collect 36-months of daily usage data, submit the data to TROT, and include the 90-day ACR review period.

5. Since the rule in §290.45(g)(1)(B) states that a calculated peak daily demand cannot be used to calculate an ACR, grant an exception to this rule along with the temporary ACR.

An alternative would be to grant a temporary exception to minimum capacity requirements until the time that an ACR can be granted.

Temporary exceptions or 40-month extension periods can only be granted once; they may not be extended or renewed. Like any other exception, they are site and system specific. The issuance of a temporary 40-month extension or temporary exception does not guarantee that an ACR will be granted or that it will be granted without additional conditions. This 40-month period allows the system to collect the required 36-months of data, send in the ACR request, and have it reviewed by TROT.

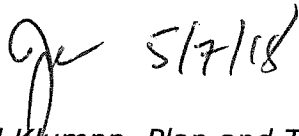
Calculating ACRs Using Comparable Site Data

PWSs have the option of requesting an ACR using daily usage data from an alternate site. If the PWS chooses to submit daily usage data from a comparable site per §290.45(g)(3)(B), the request must be submitted by a PE licensed to practice in the State of Texas. The PE must certify that the alternate site is comparable based on consideration of the following factors:

1. Prevailing land use patterns (rural versus urban).
2. Number of connections.
3. Density of service populations.
4. Fire flow obligations.
5. Socio-economic, climatic, geographic and topographic considerations.
6. Any other factors as may be relevant (ex. irrigation usage).

This approach would require that the PE submit the daily usage data and connection counts from the comparable site and the weekly usage data and connection counts from the PWS requesting the ACR.

Finalized and Approved by:



Joel Klumpp, Plan and Technical Review Section Manager on 05/07/2018

If no formal expiration date has been established for this staff guidance, it will remain in effect until superseded or canceled.

Revision History:

Date	Action	Action by
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March 7, 2016	Reviewed	Marlo Berg
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April 6, 2016	Reviewed	Tamira Konkin-Garcia; Joel Klumpp
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